EPI-LOG

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Update on Pertussis Post-Exposure Prophylaxis (PEP) Recommendations

This update describes recent changes in our public health recommendations for management of contacts of pertussis cases. Previously, Public Health has recommended and facilitated antimicrobial drug PEP for *all* close contacts of pertussis cases. Many of these persons are non-household members who are not at high risk for severe pertussis. Public Health is now routinely recommending and facilitating PEP only for "high priority" close contacts of pertussis cases, including:

- Children under one year of age, because of their increased risk for severe disease
- Pregnant women (particularly in the last three weeks of pregnancy), because of the potential for transmission to the newborn, to health care workers (HCW), and to other pregnant women in obstetrical offices and prenatal classes
- HCWs with face-to-face patient contact, because of the potential for transmission to patients at risk for severe disease
- Close contacts of a pertussis case that may transmit pertussis to other persons at high risk for severe disease (e.g., household members of, and other persons who live or work with, infants or pregnant women)

Close contacts of pertussis cases who are <u>not</u> at increased risk for severe pertussis will be counseled about pertussis disease, advised to seek medical evaluation and testing for pertussis if they become symptomatic within 21 days of exposure, made aware of the availability of PEP, and advised to contact their health care provider if they desire additional information and/or treatment.

Why are we making this change? Contact tracing and arranging pertussis PEP for *non-high-risk* persons is resource intensive, costly, and requires extensive use of antibiotics, yet the benefits of this practice are not well established. Data on which PEP recommendations have been based are limited. Although some studies demonstrated benefit of PEP administered to household contacts, other studies have not, and the value of such treatment, particularly among non-household contacts, is not clear. Consequently, our neighbors at Health Canada and the Oregon Department of Health Services also recently revised their official recommendations for pertussis PEP to target persons at increased risk for

Recommended Treatment and Post-Exposure Prophylaxis Regimens for Pertussis[1]

Always refer to the package insert or current PDR for complete prescribing information. The recommended antimicrobial agents and dosing regimens for post-exposure prophylaxis are the same as those for treatment of pertussis

Azithromycin:
- Infants aged <6 months: 10 mg/kg per day for 5 days
- Infants and children aged ≥6 months: 10 mg/kg (maximum: 500 mg) on day 1, followed by 5 mg/kg per day (maximum: 250 mg) on days 2-5
- Adults: 500 mg on day 1, followed by 250 mg per day on days 2-5

Clarithromycin:
- Infants aged <1 month: not recommended
- Infants and children aged ≥1 month: 15 mg/kg per day (maximum: 1 g per day) in 2 divided doses each day for 7 days
- Adults: 1 g per day in two divided doses for 7 days

Erythromycin:
- Infants aged <1 month: not preferred because of risk for infantile hypertrophic pyloric stenosis (IHPS). Azithromycin is the recommended antimicrobial agent. If azithromycin is unavailable and erythromycin is used, the dose is 40-50 mg/kg per day in 4 divided doses. These infants should be monitored for IHPS.
- Infants aged ≥1 month and older children: 40-50 mg/kg per day (maximum: 2 g per day) in 4 divided doses for 14 days
- Adults: 2 g per day in 4 divided doses for 14 days

Alternate agent Trimethoprim-sulfamethoxizole (TMP-SMZ):
TMP-SMZ is used as an alternative to a macrolide antibiotic in patients aged ≥2 months who have contraindication to or cannot tolerate macrolide agents, or who are infected with a macrolide-resistant strain of *B. pertussis*. Macrolide-resistant *B. pertussis* is rare. Because of the potential risk for kernicterus among infants, TMP--SMZ should not be administered to pregnant women, nursing mothers, or infants aged <2 months.

- Infants aged <2 months: contraindicated
- Infants aged ≥2 months and children: trimethoprim 8 mg/kg per day, sulfamethoxazole 40 mg/kg per day in 2 divided doses for 14 days
- Adults: trimethoprim 320 mg per day, sulfamethoxazole 1,600 mg per day in 2 divided doses for 14 days

[1]CDC. Recommended Antimicrobial Agents for the Treatment and Postexposure Prophylaxis of Pertussis. MMWR. 2005. 54(No.RR-14). www.cdc.gov/mmwr/preview/mmwrhtml/rr5414a1.htm

pertussis: infants <1 year of age, and pregnant women in the third trimester. Likewise, the 2004 edition of the authoritative *Control of Communicable Diseases Manual* (18th Edition, American Public Health Association) recommends limiting PEP to children under 1 year of age, pregnant women in the last three weeks of pregnancy, and household members of pertussis case-patients, particularly if the household includes children under one year of age, or pregnant women in the last three weeks of pregnancy.

As a consequence of this change, health care providers may be contacted by patients who have had a pertussis exposure, are not at high risk for severe pertussis, and who are seeking PEP or advice on the risks and benefits of PEP. For the record, the 2003 American Academy of Pediatrics *Red Book* recommends PEP for household and other close contacts of pertussis cases. The most recent information from the Centers for Disease Control and Prevention[1] states, "A macrolide can be administered as prophylaxis for close contacts of a person with pertussis if the person has no contraindication to its use."

Definition of Close Contact

Pertussis is spread by direct contact with infectious respiratory secretions by droplet transmission. Such droplets generally travel 3 feet or less when an infected person talks, coughs, or sneezes. The risk for transmission of pertussis is a function of multiple factors including infectiousness of the patient and the intensity of the exposure (i.e., the clinical stage of source case, proximity and duration of contact, ventilation, and use of appropriate infection control measures by HCW).

Examples of close contact with pertussis case-patients include:

- Direct face-to-face contact (within 3 feet) with a symptomatic case-patient during the communicable period (within 21 days of illness onset). Persons with pertussis are most communicable during the first 2 weeks of illness, the catarrhal and the early (paroxysmal) cough stages.
- Sharing a confined space in close proximity for a prolonged period of time, such as >1 hour, with a symptomatic case-patient during the communicable period.
- Direct contact with respiratory, oral, or nasal secretions from a symptomatic case-patient during the communicable period (e.g., a cough or sneeze in the face, sharing eating utensils, kissing, or performing a medical exam including examination of the nose and throat).

Close contact does not include activities such as walking by a person or briefly sitting across a waiting room or office.

Save the Dates: Epidemiology & Prevention of Vaccine-Preventable Diseases Course

The CDC Satellite Course "Epidemiology & Prevention of Vaccine-Preventable Diseases" will be broadcast on February 9th, 16th, 23rd & March 2nd 2006. Location and time of broadcast will be announced shortly. For more information please contact Maybelle Tamura at (206) 296-5252.

Disease Reporting

AIDS/HIV ..... (206) 296-4645
STDs..... (206) 731-3954
TB ..... (206) 731-4579
All Other Notifiable Communicable Diseases (24 hours a day) .... (206) 296-4774
Automated reporting line for conditions not immediately notifiable ..... (206) 296-4782

Hotlines

Communicable Disease ..... (206) 296-4949
HIV/STD ..... (206) 205-STDS

Public Health-Seattle & King County Online Resources

Home Page: www.metrokc.gov/health/
The *EPI-LOG*: www.metrokc.gov/health/providers
Communicable Disease listserv (PHSKC INFO-X) at: mailman.u.washington.edu/mailman/listinfo/phskc-info-x

Reported Cases of Selected Diseases, Seattle & King County 2005

	Cases Reported in November		Cases Reported Through November	
	2005	2004	2005	2004
Campylobacteriosis	29	17	315	243
Cryptosporidiosis	5	2	66	30
Chlamydial infections	624	374	5,186	4,800
Enterohemorrhagic *E. coli* (non-O157)	1	0	7	0
***E. coli* O157: H7**	1	2	35	41
Giardiasis	11	7	140	111
Gonorrhea	203	129	1,650	1,110
***Haemophilus influenzae* (cases <6 years of age)**	0	0	2	2
Hepatitis A	1	2	16	13
Hepatitis B (acute)	5	3	22	19
Hepatitis B (chronic)	64	54	640	571
Hepatitis C (acute)	2	0	9	8
Hepatitis C (chronic, confirmed/probable)	75	121	1,197	1,170
Hepatitis C (chronic, possible)	43	22	396	309
Herpes, genital (primary)	77	44	722	647
HIV and AIDS (new diagnoses only)	24	41	404	375
Measles	0	0	1	6
Meningococcal Disease	1	1	14	15
Mumps	0	0	1	1
Pertussis	39	8	281	197
Rubella	0	0	1	0
Rubella, congenital	0	0	0	0
Salmonellosis	14	18	206	222
Shigellosis	5	4	70	58
Syphilis	22	16	154	139
Syphilis, congenital	0	0	0	0
Syphilis, late	10	2	69	61
Tuberculosis	11	7	104	115